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(54) **METHOD FOR PREPARING TWO-LAYER
BICOMPOSITE COLLAGEN MATERIAL
FOR PREVENTING POST-OPERATIVE
ADHESIONS**

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(52) **U.S. Cl.** **424/444; 426/93.7; 426/426;
435/177; 435/395; 530/356; 530/402**

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(57) **ABSTRACT**

A bicomposite material based on collagen is prepared which has two closely bound layers and is biocompatible, non-toxic, hemostatic and biodegradable in less than a month, and can be used in surgery to achieve hemostasis and prevent post-surgical adhesion. To prepare the material, a solution of collagen or gelatin, which may contain glycerine and a hydrophilic additive such as polyethylene glycol or a polysaccharide, is poured onto an inert support to form a layer 30 μm to less than 100 μm thick. Then a polymeric porous fibrous layer is applied during gelling of the collagen or gelatin, and the resultant material is dried. The polymeric porous fibrous layer may be made of collagen or a polysaccharide, and have a density of not more than 75 mg/cm^2 , a pore size from 30 μm to 300 μm and a thickness of 0.2 cm to 1.5 cm.

30 Claims, 2 Drawing Sheets